

SEQUENCE LISTING

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Nachmias, Boaz  
<120> Livin-derived peptides, compositions and uses thereof  
<130> 16033/US/03  
<140> 10/559,639  
<150> IL 156263  
<151> 2003-06-02  
<150> PCT/IL2004/000461  
<151> 2004-05-31  
<160> 11  
<170> PatentIn version 3.3  
<210> 1  
<211> 246  
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<213> Homo sapiens  
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Gly Gln Ile Leu Gly Gln Leu Arg Pro Leu Thr Glu Glu Glu Glu  
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Glu Gly Ala Gly Ala Thr Leu Ser Arg Gly Pro Ala Phe Pro Gly Met  
20 25 30

Gly Ser Glu Glu Leu Arg Leu Ala Ser Phe Tyr Asp Trp Pro Leu Thr  
35 40 45

Ala Glu Val Pro Pro Glu Leu Leu Ala Ala Ala Gly Phe Phe His Thr  
50 55 60

Gly His Gln Asp Lys Val Arg Cys Phe Phe Cys Tyr Gly Gly Leu Gln  
65 70 75 80

Ser Trp Lys Arg Gly Asp Asp Pro Trp Thr Glu His Ala Lys Trp Phe  
85 90 95

Pro Ser Cys Gln Phe Leu Leu Arg Ser Lys Gly Arg Asp Phe Val His  
100 105 110

Ser Val Gln Glu Thr His Ser Gln Leu Leu Gly Ser Trp Asp Pro Trp  
115 120 125

Glu Glu Pro Glu Asp Ala Ala Pro Val Ala Pro Ser Val Pro Ala Ser  
130 135 140

Gly Tyr Pro Glu Leu Pro Thr Pro Arg Arg Glu Val Gln Ser Glu Ser  
145 150 155 160

Ala Gln Glu Pro Gly Gly Val Ser Pro Ala Glu Ala Gln Arg Ala Trp  
165 170 175

Trp Val Leu Glu Pro Pro Gly Ala Arg Asp Val Glu Ala Gln Leu Arg  
180 185 190

Arg Leu Gln Glu Glu Arg Thr Cys Lys Val Cys Leu Asp Arg Ala Val  
195 200 205

Ser Ile Val Phe Val Pro Cys Gly His Leu Val Cys Ala Glu Cys Ala  
210 215 220

Pro Gly Leu Gln Leu Cys Pro Ile Cys Arg Ala Pro Val Arg Ser Arg  
225 230 235 240

Val Arg Thr Phe Leu Ser  
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Gly Gln Ile Leu Gly Gln Leu Arg Pro Leu Thr Glu Glu Glu Glu  
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20 25 30

Gly Ser Glu Glu Leu Arg Leu Ala Ser Phe Tyr Asp Trp Pro Leu Thr  
35 40 45

Ala Glu Val Pro Pro Glu Leu Leu Ala Ala Ala Gly Phe Phe His Thr  
50 55 60

Gly His Gln Asp Lys Val Arg Cys Phe Phe Cys Tyr Gly Gly Leu Gln  
65 70 75 80

Ser Trp Lys Arg Gly Asp Asp Pro Trp Thr Glu His Ala Lys Trp Phe  
85 90 95

Pro Ser Cys Gln Phe Leu Leu Arg Ser Lys Gly Arg Asp Phe Val His  
100 105 110

Ser Val Gln Glu Thr His Ser Gln Leu Leu Gly Ser Trp Asp Pro Trp  
115 120 125

Glu Glu Pro Glu Asp Ala Ala Pro Val Ala Pro Ser Val Pro Ala Ser  
130 135 140

Gly Tyr Pro Glu Leu Pro Thr Pro Arg Arg Glu Val Gln Ser Glu Ser  
145 150 155 160

Ala Gln Glu Pro Gly Ala Arg Asp Val Glu Ala Gln Leu Arg Arg Leu  
165 170 175

Gln Glu Glu Arg Thr Cys Lys Val Cys Leu Asp Arg Ala Val Ser Ile  
180 185 190

Val Phe Val Pro Cys Gly His Leu Val Cys Ala Glu Cys Ala Pro Gly  
195 200 205

Leu Gln Leu Cys Pro Ile Cys Arg Ala Pro Val Arg Ser Arg Val Arg  
210 215 220

Thr Phe Leu Ser  
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Arg Ser Leu Gly Ser Pro Val Leu Gly Leu Asp Thr Cys Arg Ala Trp  
35 40 45

Asp His Val Asp Gly Gln Ile Leu Gly Gln Leu Arg Pro Leu Thr Glu  
50 55 60

Glu Glu Glu Glu Glu Gly Ala Gly Ala Thr Leu Ser Arg Gly Pro Ala  
65 70 75 80

Phe Pro Gly Met Gly Ser Glu Glu Leu Arg Leu Ala Ser Phe Tyr Asp  
85 90 95

Trp Pro Leu Thr Ala Glu Val Pro Pro Glu Leu Leu Ala Ala Ala Gly  
100 105 110

Phe Phe His Thr Gly His Gln Asp Lys Val Arg Cys Phe Phe Cys Tyr  
115 120 125

Gly Gly Leu Gln Ser Trp Lys Arg Gly Asp Asp Pro Trp Thr Glu His  
130 135 140

Ala Lys Trp Phe Pro Ser Cys Gln Phe Leu Leu Arg Ser Lys Gly Arg  
145 150 155 160

Asp Phe Val His Ser Val Gln Glu Thr His Ser Gln Leu Leu Gly Ser  
165 170 175

Trp Asp Pro Trp Glu Glu Pro Glu Asp Ala Ala Pro Val Ala Pro Ser  
180 185 190

Val Pro Ala Ser Gly Tyr Pro Glu Leu Pro Thr Pro Arg Arg Glu Val

195

200

205

Gln Ser Glu Ser Ala Gln Glu Pro Gly Gly Val Ser Pro Ala Glu Ala  
210 215 220

Gln Arg Ala Trp Trp Val Leu Glu Pro Pro Gly Ala Arg Asp Val Glu  
225 230 235 240

Ala Gln Leu Arg Arg Leu Gln Glu Glu Arg Thr Cys Lys Val Cys Leu  
245 250 255

Asp Arg Ala Val Ser Ile Val Phe Val Pro Cys Gly His Leu Val Cys  
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Val Arg Ser Arg Val Arg Thr Phe Leu Ser  
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<212> PRT

<213> Homo sapiens

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Ser His Trp Ala Ala Gly Asp Gly Pro Thr Gln Glu Arg Cys Gly Pro  
20 25 30

Arg Ser Leu Gly Ser Pro Val Leu Gly Leu Asp Thr Cys Arg Ala Trp  
35 40 45

Asp His Val Asp Gly Gln Ile Leu Gly Gln Leu Arg Pro Leu Thr Glu  
50 55 60

Glu Glu Glu Glu Glu Gly Ala Gly Ala Thr Leu Ser Arg Gly Pro Ala  
65 70 75 80

Phe Pro Gly Met Gly Ser Glu Glu Leu Arg Leu Ala Ser Phe Tyr Asp  
85 90 95

Trp Pro Leu Thr Ala Glu Val Pro Pro Glu Leu Leu Ala Ala Ala Gly  
100 105 110

Phe Phe His Thr Gly His Gln Asp Lys Val Arg Cys Phe Phe Cys Tyr  
115 120 125

Gly Gly Leu Gln Ser Trp Lys Arg Gly Asp Asp Pro Trp Thr Glu His  
130 135 140

Ala Lys Trp Phe Pro Ser Cys Gln Phe Leu Leu Arg Ser Lys Gly Arg  
145 150 155 160

Asp Phe Val His Ser Val Gln Glu Thr His Ser Gln Leu Leu Gly Ser  
165 170 175

Trp Asp Pro Trp Glu Glu Pro Glu Asp Ala Ala Pro Val Ala Pro Ser  
180 185 190

Val Pro Ala Ser Gly Tyr Pro Glu Leu Pro Thr Pro Arg Arg Glu Val  
195 200 205

Gln Ser Glu Ser Ala Gln Glu Pro Gly Ala Arg Asp Val Glu Ala Gln  
210 215 220

Leu Arg Arg Leu Gln Glu Glu Arg Thr Cys Lys Val Cys Leu Asp Arg  
225 230 235 240

Ala Val Ser Ile Val Phe Val Pro Cys Gly His Leu Val Cys Ala Glu  
245 250 255

Cys Ala Pro Gly Leu Gln Leu Cys Pro Ile Cys Arg Ala Pro Val Arg  
260 265 270

Ser Arg Val Arg Thr Phe Leu Ser  
275 280

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<212> DNA

<213> Artificial Sequence

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<223> Primer for site-directed mutagenesis

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27

<210> 6

<211> 24

<212> DNA

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<223> Primer for site-directed mutagenesis

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24

<210> 7

<211> 18

<212> DNA

<213> Artificial Sequence;

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<223> Mega-primer to introduce mutation D52E

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18

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<212> DNA  
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<212> DNA  
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